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10/015,015	12/11/2001	Eric Anderson	10016145	2067

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HEWLETT-PACKARD COMPANY  
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EXAMINER
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SHIN, KYUNG H

ART UNIT	PAPER NUMBER
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2143

DATE MAILED: 02/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/015,015	<b>Applicant(s)</b> ANDERSON, ERIC	
	<b>Examiner</b> Kyung H Shin	<b>Art Unit</b> 2143	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 December 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-35 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>12/11/01, 7/1/02</u> . | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. This action is responding to application papers filed 12/11/2001
2. Claims 1 - 35 are pending. Independent claims are 1, 22, 32.

#### ***Claim Rejection - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 1 - 4, 8 - 22, 24, 26 - 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sequeira (US Patent No. 6,620,205) in view of Liu (US Patent No. 6,839,680).**

**Regarding Claims 1, 32, Sequeira discloses a method for content delivery, comprising:**

- a) requesting a piece of content; (see Sequeira col. 4, lines 33-36: user requests content from a web server)
- b) delimiting the piece of content into one or more portions at a source; (see Sequeira col. 7, lines 21-27: content is divided (delimited) into partitions (portions))

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- c) associating an identifier with a selected one of the one or more portions of the content; (see Sequeira col. 8, lines 3-6: identifier attached to each partition (portion))
- d) sending the identifier to a destination; (see Sequeira col. 6, lines 40-45: identifier transmitted to destination) and
- e) Sequeira does not disclose utilization of cache techniques to manage data. However, Liu discloses looking up the identifier at the destination and, if the identifier is found, retrieving the associated portion of content at the destination and, if the identifier is not found, receiving the associated portion of content from the source. (see Liu col. 54, lines 15-23: cache techniques for data management, cache subsystem associates document (content) with categorization (identifiers))

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Sequeira to utilize cache technology as taught by Liu. One of ordinary skill in the art would be motivated to employ Liu in order to create robust, accurate and maintainable performance techniques for content distribution in network communications. (see Liu col. 3, lines 29-31: “ ... *automatically categorize the documents ... categorization technique should be robust, accurate and maintainable ...* ”)

**Regarding Claim 2**, Sequeira discloses the method according to claim 1, wherein if the identifier is not found, the method further comprises storing the identifier and the associated portion of content at the destination. (see Sequeira

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col. 6, lines 40-45: identifier and content transmitted and stored at destination)

**Regarding Claims 3, 34,** Sequeira discloses wherein storing the identifier and the associated portion of the content at the destination. (see Sequeira col. 6, lines 40-45: identifier and content transmitted to destination) Sequeira does not disclose a look-up table at destination. However, Liu discloses the method according to claims 1, 33, wherein further comprising a look-up table at the destination. (see Liu col. 54, lines 15-23: look-up table for content management utilizing cache techniques)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Sequeira to utilize cache technology as taught by Liu. One of ordinary skill in the art would be motivated to employ Liu in order to create robust, accurate and maintainable performance techniques for content distribution in network communications. (see Liu col. 3, lines 29-31)

**Regarding Claim 4,** Sequeira does not disclose the method according to claim 3, wherein the look-up table memory comprises a content addressable memory (CAM). (see Liu col. 54, lines 2-11: cache subsystem associates document (content) with categorization (identifiers))

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Sequeira to utilize cache technology as taught by Liu. One of ordinary skill in the art would be motivated to employ Liu in order to create robust and accurate performance techniques for content distribution in a

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network. (see Liu col. 3, lines 29-31)

**Regarding Claim 5**, Sequeira discloses the method according to claim 1, further comprising computing the identifier from data contents of the associated portion of content. (see Sequeira col. 7, lines 31-39; col. 8, lines 3-6: content information generated based on HTML data)

**Regarding Claim 8**, Sequeira discloses a content delivery system wherein the source sends the identifier. (see Sequeira col. 6, lines 40-45: identifier sent to destination) However, Liu discloses the method according to claim 1, waits for an indication from the destination before sending the associated portion of content. (see Liu col. 54, lines 15-23: cache techniques, whether content is in cache determines if content is sent)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Sequeira to utilize cache technology as taught by Liu. One of ordinary skill in the art would be motivated to employ Liu in order to utilize robust and accurate performance techniques for content distribution in a network. (see Liu col. 3, lines 29-31)

**Regarding Claim 9**, Sequeira discloses wherein the source sends identifier and associated portion of content. (see Sequeira col. 6, lines 40-45: identifier and content distributed to destination) Sequeira does not disclose that if information is located in cache then do not send information from database. However, Liu

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discloses the method according to claim 1, wherein if the identifier is found at the destination, the destination interrupts sending of the associated portion of content. (see Liu col. 54, lines 15-23: cache techniques, whether content is in cache determines if content is sent)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Sequeira to utilize cache technology as taught by Liu. One of ordinary skill in the art would be motivated to employ Liu in order to utilize robust and accurate performance techniques for content distribution in a network. (see Liu col. 3, lines 29-31)

**Regarding Claim 10**, Sequeira discloses the method according to claim 1, wherein the piece of content is a web page. (see Sequeira col. 9, lines 36-38: content partitioned for a web page)

**Regarding Claim 11**, Sequeira discloses the method according to claim 1, wherein the piece of content includes dynamic and static content. (see Sequeira col. 6, lines 57-62: content partition (portion) categorized as static or dynamic)

**Regarding Claim 12**, Sequeira discloses the method according to claim 11, wherein said one or more portions include at least one portion consisting of static content. (see Sequeira col. 6, lines 57-62: content partition (portion) categorized as static)

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**Regarding Claim 13**, Sequeira discloses the method according to claim 12, wherein said one or more portions include at least one portion containing mixed or dynamic content. (see Sequeira col. 6, lines 57-62: content partition (portion) categorized as static and dynamic content partitions (portions))

**Regarding Claim 14**, Sequeira discloses the method according to claim 13, further comprising assigning identifiers to each portion consisting of static content. (see Sequeira col. 8, lines 3-6: identifiers assigned to partitions (portions))

**Regarding Claim 15**, Sequeira discloses the method according to claim 1, wherein said one or more portions are of fixed size. (see Sequeira col. 9, lines 38-41: partitions (portions) sized (fixed size) to be completely displayed on monitor)

**Regarding Claim 16**, Sequeira discloses the method according to claim 1, wherein said one or more portions are of variable size. (see Sequeira col. 9, lines 38-41)

**Regarding Claim 17**, Sequeira discloses the method according to claim 1, wherein said delimiting is performed by comparing the piece of content to another piece of content and determining which portions are common to both. (see Sequeira col. 7, lines 31-39: web page partitioned (portions) based on



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HTML data contents)

**Regarding Claim 18**, Sequeira discloses the method according to claim 1, wherein said delimiting is performed based on features contained within the piece of content. (see Sequeira col. 7, lines 31-39: content partitioning (delimited) based on content features (animated graphics or dynamic))

**Regarding Claim 19**, Sequeira discloses the method according to claim 18, said features including white or blank space to be displayed. (see Sequeira col. 7, lines 31-39: content partitioned based on content features)

**Regarding Claim 20**, Sequeira discloses at least one portion received from source (see Sequeira col. 6, lines 40-45: partition (portion) retrieved from server (source)) Sequeira does not disclose one portion retrieved from destination. However, Liu discloses the method according to claim 1, further comprising assembling the piece of content at the destination from at least one portion retrieved at the destination. (see Liu col. 54, lines 15-23: cache techniques, search and retrieve content information from cache)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Sequeira to utilize cache technology as taught by Liu. One of ordinary skill in the art would be motivated to employ Liu in order to utilize robust and accurate performance techniques for content distribution in a network. (see Liu col. 3, lines 29-31)

**Regarding Claim 21**, Sequeira discloses the method according to claim 1, said sending being via a wide area network. (see Sequeira col. 4, lines 20-26: Internet content indicates interconnected network of LANs and WANs (wide area network) in a internetwork)

**Regarding Claim 22**, Sequeira discloses an apparatus for delivery of content data comprising:

- a) a source having a plurality stored pieces of content, the source for receiving requests for content, delimiting the pieces of content into portions and assigning identifiers to the portions of content; (see Sequeira col. 7, lines 21-27; col. 8, lines 3-6: content partitioned (portions) with identifiers) and
- b) Sequeira discloses a destination coupled to the source via a network (see Sequeira col. 4, lines 20-26: network connected server (source)), the destination for providing the requests for content (see Sequeira col. 4, lines 33-36: server receives requests for content), receiving the identifiers from the source in response to the requests (see Sequeira col. 6, lines 40-45: identifiers sent from source to destination) Sequeira does not disclose a look-up table. However, Liu discloses wherein looking up the identifiers in a look-up table at the destination, and wherein when an identifier is found in the table, the destination retrieves an associated portion of content from the table and when the identifier is not found in the

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table, the destination receives the associated portion of content from the source via the network. (see Liu col. 54, lines 15-23: cache techniques, whether content is in cache determines if content is sent)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Sequeira to utilize cache technology as taught by Liu. One of ordinary skill in the art would be motivated to employ Liu in order to create robust, accurate and maintainable performance techniques for content distribution in network communications. (see Liu col. 3, lines 29-31)

**Regarding Claim 26**, Sequeira discloses the destination receives the associated portion of content from the source. (see Sequeira col. 6, lines 40-45: content retrieved from source) However, Liu discloses the apparatus according to claim 22 wherein the destination stores the identifier and the associated portion of content in the table. (see Liu col. 54, lines 15-23: cache techniques utilized, identifier is stored in a cache table for data management)

**Regarding Claim 27**, Sequeira discloses the method wherein the source sends the identifier. (see Sequeira col. 6, lines 40-45: identifier sent to destination) Sequeira does not disclose determining whether content is within cache. However, Liu discloses the method according to claim 22, wherein the source waits for an indication from the destination before sending the associated portion of content. (see Liu col. 54, lines 15-23: cache techniques, whether content is in cache determines if content is sent)

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It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Sequeira to utilize cache technology as taught by Liu. One of ordinary skill in the art would be motivated to employ Liu in order to create robust, accurate and maintainable performance techniques for content distribution in network communications. (see Liu col. 3, lines 29-31)

**Regarding Claim 28** Sequeira discloses wherein the source sends the identifier and the associated portion of content. (see Sequeira col. 6, lines 40-45: identifier and content sent to destination) However, Liu discloses the method according to claim 22, if the identifier is found at the destination, the destination interrupts sending of the associated portion of content. (see Liu col. 54, lines 15-23: cache techniques, whether content is in cache determines if content is sent)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Sequeira to utilize cache technology as taught by Liu. One of ordinary skill in the art would be motivated to employ Liu in order to create robust, accurate and maintainable performance techniques for content distribution in network communications. (see Liu col. 3, lines 29-31)

**Regarding Claim 29**, Sequeira discloses the method according to claim 22, wherein the source attempts to delimit the portions into those which consist of static content and those which contain dynamic or mixed content. (see Sequeira col. 6, lines 57-62: content partitioned (portions) into static and dynamic content)

**Regarding Claim 30**, Sequeira discloses the apparatus according to claim 29, wherein the source attempts to delimit the portions into those which consist of static content and those which contain dynamic or mixed content by comparing pieces of content to each other and determining which portions are common. (see Sequeira col. 6, lines 57-62: content partitioned (portions) into static and dynamic content)

**Regarding Claim 31**, Sequeira discloses the method according to claim 29, wherein the source attempts to delimit the portions into those which consist of static content and those which contain dynamic or mixed content based on features contained within the piece of content. (see Sequeira col. 6, lines 57-62: content partitioned (portions) into static and dynamic content based on features)

**Regarding Claim 33**, Sequeira discloses wherein said determining comprising looking up the identifier at the source. (see Sequeira col. 9, lines 16-22: partition (portion) identifier table) Sequeira does not disclose wherein if identifier is not found, content portion is sent to destination. However, Liu discloses the method according to claim 32, wherein if the identifier is not found at the source, the method further comprising sending the portion to the destination. (see Liu col. 54, lines 15-23: cache techniques, whether content is in cache determines if content is sent)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Sequeira to utilize cache technology as taught by Liu. One of ordinary skill in the art would be motivated to employ Liu in order to create robust, accurate and maintainable performance techniques for content distribution in network communications. (see Liu col. 3, lines 29-31)

**Regarding Claim 35**, Sequeira discloses the method according to claim 33, further comprising storing the identifier in a table at the source. (see Sequeira col. 9, lines 16-22: identifier stored in table)

**5. Claims 6, 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sequeira-Liu and further in view of Marconcini (US Patent No. 6,834,110).**

**Regarding Claim 6**, Sequeira discloses usage of hash algorithm to generate hash values. (see Sequeira col. 11, lines 40-43: hash techniques utilized)  
Sequeira does not disclose the usage of MD-5 algorithm in hash generation. However, Marconcini discloses the method according to claim 5, wherein the identifier is a MD-5 hash value. (see Marconcini col. 17, lines 1-4; col. 17, lines 10-12: MD-5 hash generation)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Sequeira to generate a hash value utilizing the MD-5 hash algorithm as taught by Marconcini. One of ordinary skill in the art

would be motivated to employ Marconcini in order to optimize secure delivery of content over communications network. (see Marconcini col. 1, lines 12-18;; “ ... *a system and related tools for the secure delivery and rights management of digital assets, such as print media, films, games, and music over global communications networks such as the Internet ... cable or satellite digital broadcast networks ...* “ ; col. 1, 55-57: “ ... *a secure, global distribution system for digital content that protects the rights of content owners ...* “)

**Regarding Claim 7**, Sequeira discloses usage of hash algorithm to generate hash values. (see Sequeira col. 11, lines 40-43: hash techniques utilized) Sequeira does not disclose the usage of SHA-1 algorithm to generate a hash value. However, Marconcini discloses the method according to claim 6, wherein the identifier is a SHA-1 hash value. (see Marconcini col. 17, lines 1-4; col. 17, lines 10-12: SHA-1 hash generation)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Sequeira to generate a hash value utilizing the MD-5 hash algorithm as taught by Marconcini. One of ordinary skill in the art would be motivated to employ Marconcini in order to optimize secure delivery of content over communications network. (see Marconcini col. 1, lines 12-18; col. 1, 55-57)

**6. Claims 23, 24, 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sequeira-Liu and further in view of Grove et al. (US**

**Patent No. 6,820,133).**

**Regarding Claim 23**, Sequeira discloses a server for storing the pieces of content and delimiting portions of the pieces of content. (see Sequeira col. 9, lines 16-22: identifier and content stored in table) Sequeira does not disclose a far proxy server. However, Grove discloses the apparatus according to claim 22, wherein the source is a far proxy. (see Grove col. 5, lines 57-62; col. 12, lines 51-54: proxy server located at a not close (far) location)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Sequeira to utilize a proxy server located near the server (source) system as taught by Grove. One of ordinary skill in the art would be motivated to employ Grove in order to optimize and improve communications performance over a communications network. (see Grove col. 4, lines 57-62: “  
*... improving the performance of Internet communication, particularly communication between web clients and web servers ...*”)

**Regarding Claim 24**, Sequeira discloses the apparatus according to claim 23, wherein the server comprises a web server. (see Sequeira col. 4, lines 20-26: web server utilized for content management)

**Regarding Claim 25**, Sequeira discloses the destination comprising a recipient of content and for looking up identifiers received from the source in the table (see Sequeira col. 9, lines 16-22: identifier and content stored in table) Sequeira



does not disclose a near proxy server. However, Grove discloses the apparatus according to claim 22, wherein the source is a near proxy. (see Grove col. 5, lines 57-62; col. 12, lines 51-54: proxy server located at a close (near) location)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Sequeira to utilize a proxy server located near the server (source) system as taught by Grove. One of ordinary skill in the art would be motivated to employ Grove in order to optimize and improve communications performance over a communications network. (see Grove col. 4, lines 57-62)

### ***Conclusion***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kyung H Shin whose telephone number is (571) 272-3920. The examiner can normally be reached on 9 am - 7 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A Wiley can be reached on (571) 272-3923. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.


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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*KHS*

Kyung H Shin  
Patent Examiner  
Art Unit 2143

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Feb. 1, 2005



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